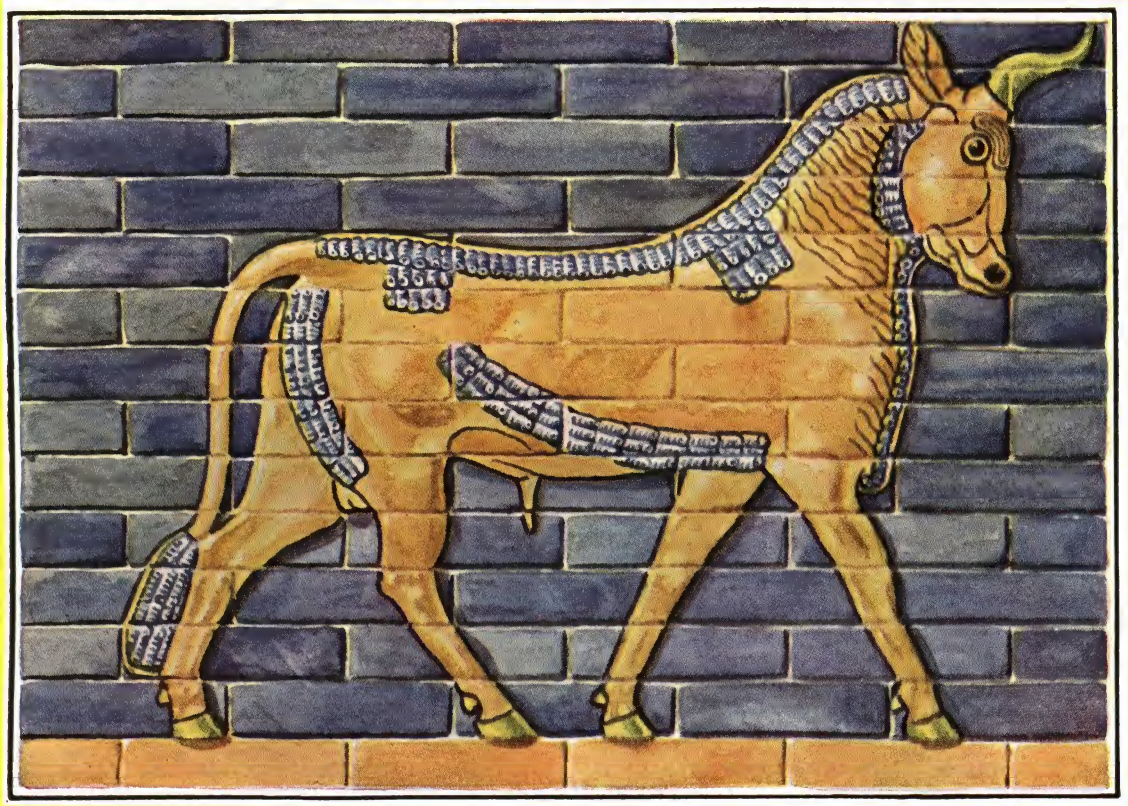
# AMERICAN ENAMELED BRICK



## EARLIEST EXAMPLE OF THE USE OF ENAMELED BRICK

**A Panel from the ANCIENT ISHTAR GATE of BABYLON**

**Original in State Museum, Berlin**

*"The largest and most striking ruins in Babylon and of all Mesopotamia"—(Koldwey, in "Excavations at Babylon").*

*The following are the words of King Nebuchadnezzar, from the great Steinplatten Inscription:*

*"Istar-sakipat-tebisa of Imgur-Bel and Nimette-Bel, both entrances of the town gates, had become too low, owing to the filling up of the street of Babil. I dug out that town gate, I grounded its foundations, finding the water strong with bitumen, and baked bricks, and caused it to be finely set forth with baked bricks of blue enamel on which wild oxen and dragons (sirrus) were pictured. I caused mighty cedars to be laid lengthwise for its ceiling. Door leaves of cedar covered with copper thresholds and hinges of bronze I fitted into its gates. Lusty wild oxen of bronze and raging dragons I placed at the thresholds. The same town gate I caused to be made glorious for the amazement of all peoples."*

## AMERICAN ENAMELED BRICK CORPORATION

**Graybar Building, 420 Lexington Avenue**

**NEW YORK, N. Y.**

# SOME RECENT REPRESENTATIVE INSTALLATIONS OF AMERICAN ENAMELED BRICK

1—Office Building, 120 Wall Street, New York, N. Y.
2—Bricken Building, 39th Street and Broadway, New York, N. Y.
3—Cushman's Bakery, White Plains, N. Y.
4—Screen Chamber, Mamaroneck, N. Y.
5—Apartment House, Brooklyn, N. Y.
6—Grover Cleveland High School, Ridgewood, N. Y.
7—Gottfried Brewing Co., New York, N. Y.
8—Fire House, Hillcrest, N. Y.

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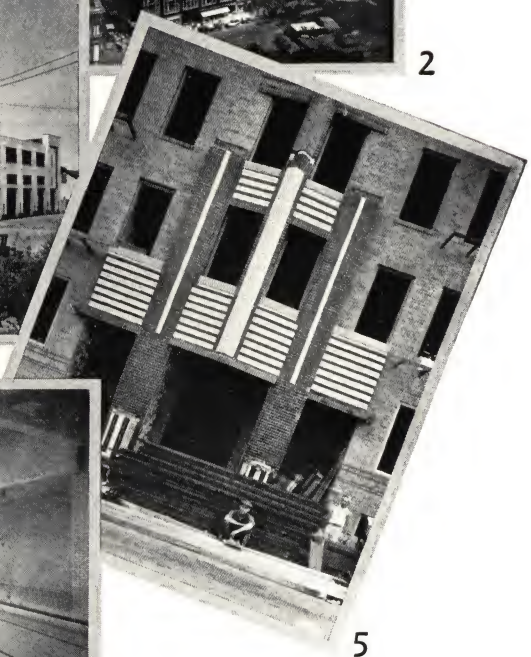

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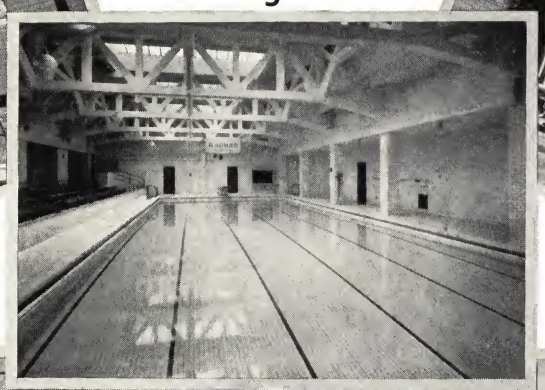


6

7

8

# AMERICAN ENAMELED BRICK

*A product of wide variety and improved manufacture for the most modern effects in the treatment of exterior and interior wall surfaces*

## VARIOUS KINDS OF BRICK

### Enameled Brick

Having a brilliant, high gloss finish of an opaque enamel in a wide range of colors and mottles. Particularly adapted for fine exterior work where light reflection or a high degree of sanitation or ease in cleaning are desired.

### Matt Glaze Brick

Identical with enamel brick as to materials, properties, colors, etc., but characterized by a soft egg-shell surface that makes it particularly adapted for exterior work, especially on large surfaces. A beautiful texture whose possibilities are receiving growing recognition.

### Bristol Glaze Brick

Available only in a light buff. The natural color of the fired brick is covered with a transparent glaze adding to this popular color the protective and light-reflecting qualities of a glass-hard surface.

### Double Unit Brick

A brick known as the American Double Unit Brick is a recent addition to the products of the company.

The standard shape is twice the height of the ordinary brick and a mortar joint.

### Tru-Edge Brick

At a nominal extra charge, any of the above may be ordered to be ground to exact dimensions.

This is particularly advantageous when the utmost in sanitation is required.

It provides an absolutely straight mortar line, so that mortar joints need not exceed 1/8 of an inch.

It has been used especially for swimming pool construction, and for dairies, markets, bakeries and similar uses where frequent washing of walls, and especially with live steam, makes a wide mortar joint undesirable.

## STANDARD AND SPECIAL SHAPES

A large and complete line of *standard* shapes, in a considerable variety of colors, is carried in stock at all times for immediate shipment. The large bulk of these shapes includes those which have been demonstrated to be the most satisfactory and commonly used in general construction. The immediate availability of this large stock makes it possible to reduce delay in manufacture and delivery to a minimum.

Special shapes, of which those most commonly required are hereinafter shown, are carried in stock to a reasonable extent. Modern manufacturing equipment, however, makes it possible to produce specials other than stock shapes in from 1 to 3 weeks instead of from 4 to 6 weeks as formerly required.

Any other special shapes can be made to architect's specifications. In these cases from 2 to 4 weeks are required, from the time of receipt of detail drawings.

### Special Arch Brick Work

No arches are carried in stock, but are made to order to architect's specifications. The illustrations hereinafter shown give dimensions for standard and special shapes, so that these may serve as a guide for details of special arches.

It is necessary to allow from 4 to 6 weeks for the accurate production of arch brick, and it is requested that details be furnished as far as possible in advance of the time that the arches will be required.

## PROPERTIES AND SPECIAL FEATURES

### Durability of Enamel

All bricks are made by single-fire process (in a modern tunnel kiln) which causes the enamel to be fused to the body in a close bond so that it cannot spall or lift from the face of the brick, nor crack from internal stresses. Technical research within the past few years has reduced "delayed" crazing to negligible proportions.

Enameled brick, through improved control of processes, is warranted to the extent to which *any* ceramic building material can be made free from tendency to craze or check without impairing its other properties or causing other and more serious defects.

Brick is fired to cone 10, in temperatures ranging up to 2600 degrees Fahrenheit. This high fire, which is directed very slowly, produces a hard durable finish that is not obtainable with soft lead or borax glazes or with a lesser degree of heat.

### Bonding

Careful control of the extent of vitrification of the body of the brick results in a product that is easily bonded in the wall, and that does not slip, as is the case when the body is burned too hard.

### Structural Strength

An outstanding characteristic of enameled brick is its structural strength, with a compression point of 5,000 lbs. per square inch. This permits its use in load bearing in the wall, while at the same time employing its advantages of cleanliness, light reflection, and decorative beauty.

### Light Reflection

The following tabulation of tests by Prof. W. J. Drisko, of the Massachusetts Institute of Technology, will indicate the light-reflecting value of enameled brick:

White enameled brick.....75%-80%
Impervious face brick, unglazed.....42%-44%
White salt glazed brick.....35%-37%
White painted plaster (after 2 years).....40%-45%

### Acids

The surface of enamel, matt glaze or Bristol glaze brick is impervious to oils, greases, alkalies, atmospheric impurities and ordinary acids.

Sulphuric, nitric, or hydrochloric acids, even in concentrated form, will not affect these enamels, but if used as a wash, even if diluted, they will attack the cement mortar.

The only commercial acids that will attack these enamels are hydrofluoric and hydrofluosilicic.

### Cleaning

Under most conditions the surface can be easily cleaned with soap and water. In cases of extreme and long-continued exposure, some alkaline solution, such as caustic soda or sodium carbonate, will clean the enamel and not affect the mortar.

### Economy

The first cost of enameled brick is the last as they can never become dislodged from vibration or settling of the building. Enameled brick can be bonded in and used as a part of the bearing walls, cheapening the cost of construction considerably by eliminating 4 inches of common brick or back-up tile.

### Method of Laying

If enameled brick is improperly laid, it may develop defects that have no relation to the merit of the product, and against which no manufacturing skill can provide. The points in correct laying are few and very simple. A mortar composed of one part of cement (any desired brand) and three parts sand (no more) will give satisfactory results. There should be *no lime* in the mortar. The brick should *not* be soaked before laying in the wall. It should be laid with a flush joint. If these simple precautions are observed, a wall of enameled brick will be permanent, free from discoloration, and impervious to the elements.

## GENERAL INFORMATION

### Grades

American brick comes in two qualities.

**Supergraded**—This is as perfect as modern equipment, human skill, and rigid inspection can produce in the present state of the art. Used especially for fine interior work which is subject to close and critical observation. Such uses as swimming pools, hallways, doorways of distinction, monumental work, etc., are characteristic.

**Standard Grade**—Standard grade brick, except to the most critical trained eye, has for the most part the appearance of Supergraded brick, owing to the rigid standards by which the latter is selected. The defects of the remainder are practically unnoticeable, and in any event do not impair in the least the serviceability of the brick, but permit its use, at a lower cost, for all surfaces where the requirements do not call for the last word in finish.

Standard grade is suitable for all forms of commercial work, large wall areas either at low or high levels from the eye, tunnels, subway and railroad stations, gas and auto service stations, etc.

### Extent of Distribution

While in the 39 years of its existence the Company has sold enameled and glazed brick throughout North and South America, and extensively in Europe and Australia, the bulk of its business is concentrated in the Eastern part of the United States and Canada. Within that territory exceptional distribution facilities have been developed, which are gradually being extended.

### Delivery

The ability to depend on delivery schedules, whether on standard or special shapes and colors, is a matter of vital importance to architect and builder.

To that end, small spot stocks of American brick are available for emergencies through eighteen distributors. An average stock of two months production of standard shapes and qualities, and of many special shapes, is available at factory.

Most special shapes or colors are available for shipment in from one to three weeks. Further, an accurate delivery schedule, changed as conditions warrant, enables our representatives to make dependable delivery promises.

Within 80% of its domestic territory, 24 hour delivery from receipt of order can be made on stock materials if conditions require it.

The development of special equipment permits the shipment of most special shapes in from 1 to 3 weeks instead of from 4 to 6 heretofore required.

The factory is located but an hour's travel from the New York office, and is so situated as to permit shipping over either the Pennsylvania or the Central Railroad of New Jersey, and their connecting lines. It is also located on tidewater, so that shipment can be made by vessel for coastwise or export delivery.

Every production unit in the factory has its duplicate, eliminating the possibility of delay of orders through breakdowns, should they occur.

### Methods of Packing

Several methods of packing are employed. For carload shipments, bricks are either packed in straw, or, at a nominal charge, are individually wrapped in chipboard envelopes. The latter is recommended as it largely eliminates danger of damage on the job. For less carloads for shipment as minimum carloads in bulk, wrappers are added, and for less carloads shipped as such, the bricks are wrapped and packed in barrels or boxes, with an appropriate charge to cover the bare cost.

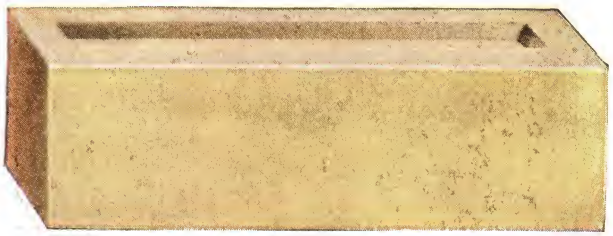
# A WIDE VARIETY OF COLOR

While for years the use of white has predominated in enameled brick (and the production of a good white calls for the utmost in skill and experience), the variety of stock colors has been greatly expanded through improved manufacturing facilities.

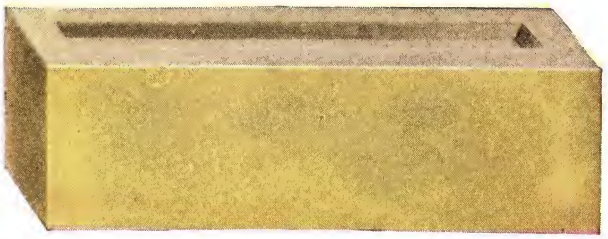
Here are shown the regular stock colors (except white), as examples of the many possible color combinations. These divide themselves into three general classifications (besides white, No. 101, and cream, No. 302) viz.: solid colors, mottles (harmonizing with granites and marbles) and delicate pastels.

There is available on special order a wide range of other tones and colors. Architects seeking new and interesting effects will be pleased with the possibilities heretofore not available in enameled or matt glazed brick. Almost any color or shade can now be made to suit the architect's requirements, and samples will be gladly prepared at any time.

On all Supergraded deliveries, regardless of shapes, uniformity of shade is maintained within such close limits that the architect may depend on securing his intended effects.



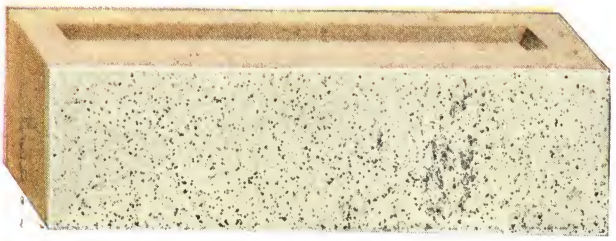
Cream—302



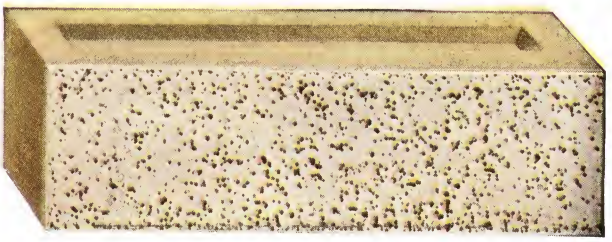
Bristol Glaze—303

Orchid—801

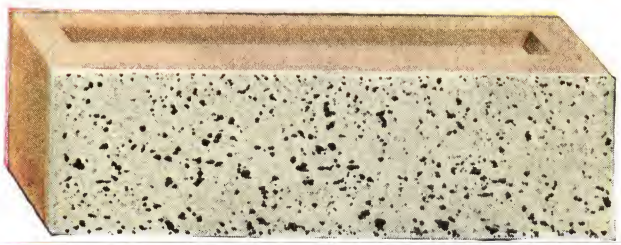
Lavender—901



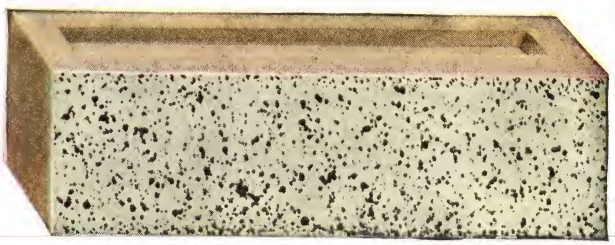
Gray Mottled—10 M



Brown Mottled—20 M

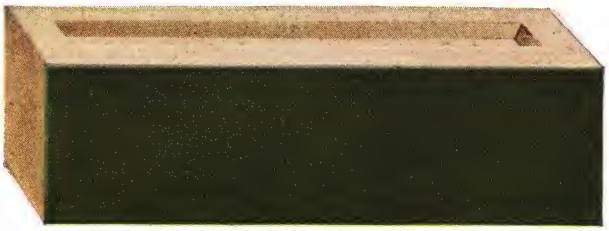


Gray and Black Mottled—35 M

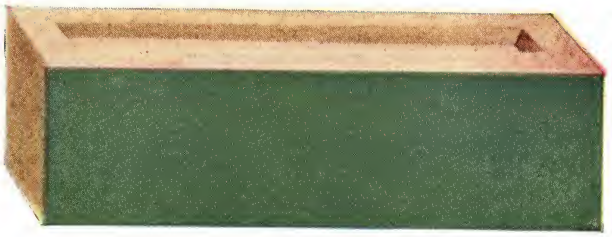


Black Mottled—45 M

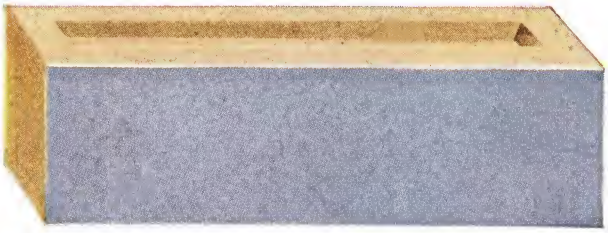
## STOCK COLORS



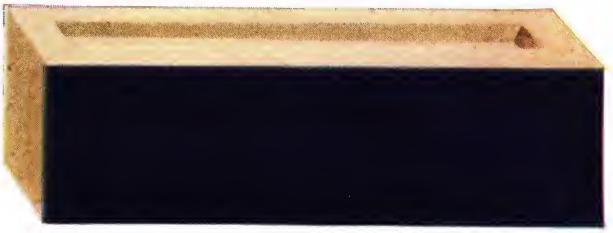
Sage Green—1101



Forest Green—1102

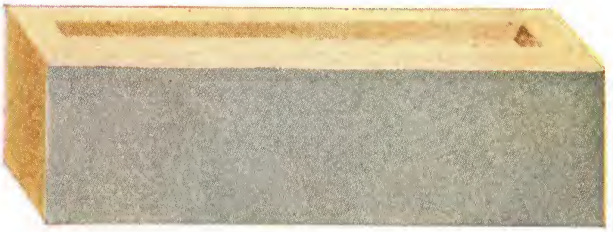


Robin's Egg Blue—501



Midnight Blue—502

Light Gray—701



Mouse Gray—702

Red Brown—401

Chocolate Brown—601

Black—201

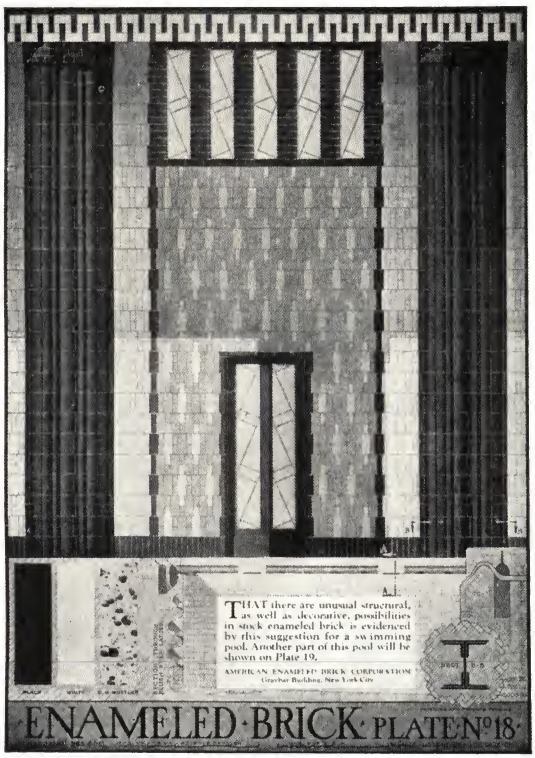
Maroon—1001

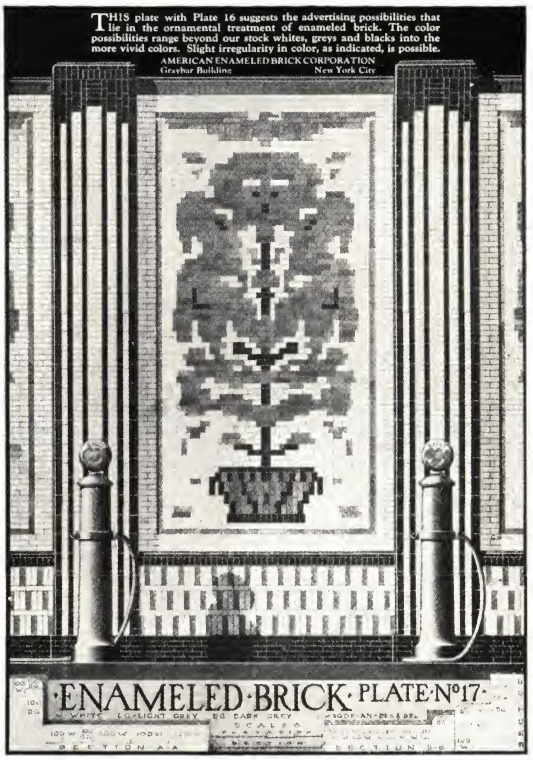
# STOCK COLORS

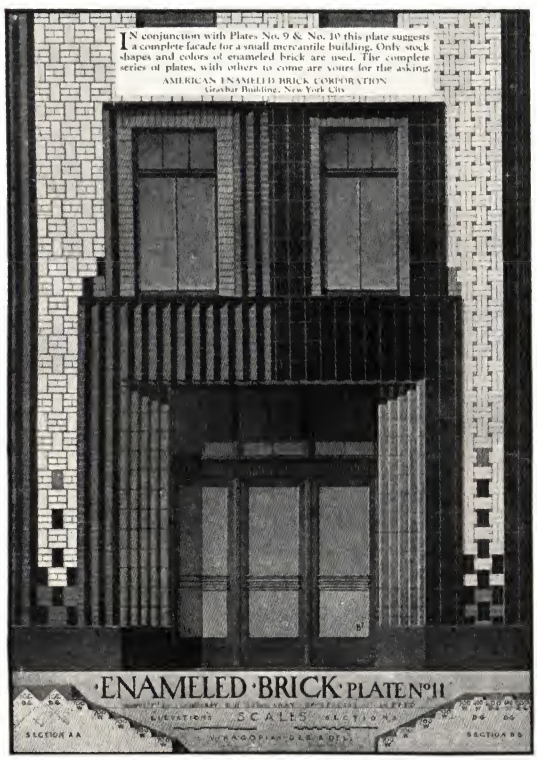
# ENAMEL BRICK IN MODERNISTIC DESIGN

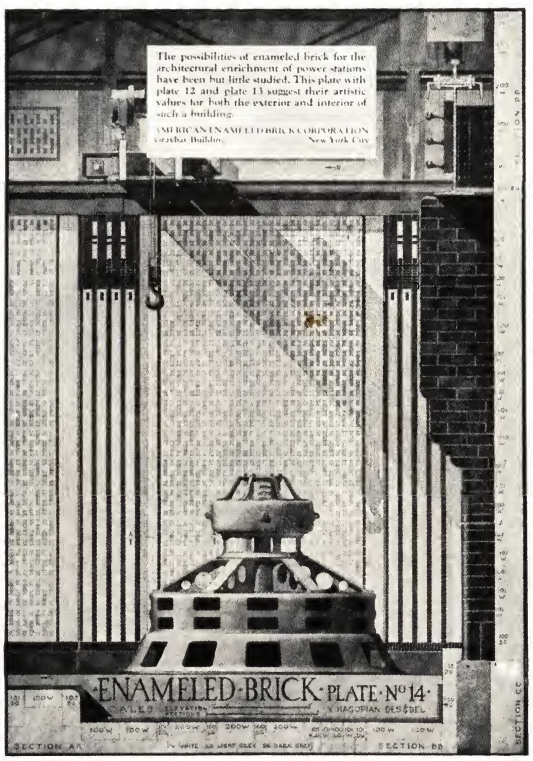
Few materials lend themselves so effectively to the modern trend in design as does enameled brick. Its brilliant surface, its flexibility in size and shape, and its structural strength all commend it. This is notably true of black brick, where the popularity of this "color" in decoration is met by a product that is permanent and free from cracking through temperature changes—a danger inherent in many of the other black materials now used.

A series of 18 imaginative studies by Vahan Hapogian (of which several are reproduced below) suggest what can be done with standard shapes and only two or three standard colors. The many special shapes and colors that are also available offer to the architect an unlimited scope for variety of treatment, both in design and structure. A portfolio containing the entire series, enlarged, will be mailed promptly on request.



# AMERICAN BRICK UNIT

From the days of ancient Assyria there has been no effective substitute for enameled brick where its special properties are required.

Years of creative design by architects; the experience of builders, and the improvement in equipment and processes in the ceramic industry, have added to the traditional brick shape and size a series of shapes that offer extraordinary flexibility in use.

# SPECIFICATIONS

### Enameled Brick

Enameled brick shall be [state size, quality, color and shade number] as manufactured by the AMERICAN ENAMELED BRICK CORPORATION, 420 Lexington Avenue, New York, N. Y., or approved equal. The enameled surface shall be smooth, lustrous, impervious and opaque and shall resist sulphuric, nitric and hydrochloric acids even in concentrated form.

### Matt Glazed Brick

Matt glazed brick shall be [state size, quality, color and shade number] as manufactured by the AMERICAN ENAMELED BRICK CORPORATION, 420 Lexington Avenue, New York, N. Y., or approved equal. The enameled surface shall be smooth, impervious and opaque, with an egg-shell finish, and shall resist sulphuric, nitric and hydrochloric acids even in concentrated form.

### Corners, Returns, etc.

All external and internal corners, window and door openings shall be returned with [architect to state whether round or square—bullnose or quoin corners are desired].

### Cove Brick

For rooms where only a wainscoting is called for cove brick shall be used to form sanitary cove base with the necessary mitres at internal and external corners, using ogee specials for cap course.

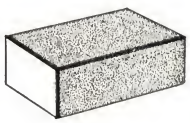
100
STRETCHER

200
FLAT STRETCHER

DOUBLE STRETCHER

300
STRETCHER ON FLAT

400
LIPPED STRETCHER



101
HEADER

301
DOUBLE HEADER

401
LIPPED HEADER

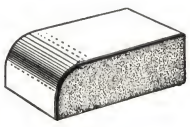
102
QUOIN

202
FLAT QUOIN

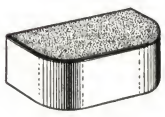
302
DOUBLE QUOIN

402
LIPPED QUOIN

103
BULLNOSE



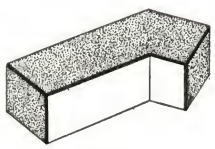
203
FLAT BULLNOSE



303
DOUBLE BULLNOSE

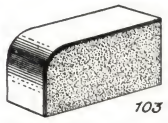
500
OCTA. CHAMFER

600
EXT. OCTAGON

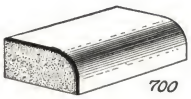


601
INT. OCTAGON

## STOCK SHAPES


103
STANDARD BULLNOSE

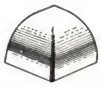
203
FLAT BULLNOSE HEADER


700
FLAT BULLNOSE STRET.

701. S.
STANDARD STARTER

701 F.
FLATTER STARTER

702-A
FLAT BULLNOSE EXT. SQUARE RET.

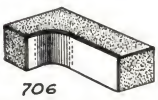

702-B
ROWLOCK SQUARE RET.

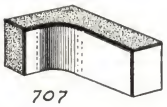
703-A
FLAT BULLNOSE

703-B
ROWLOCK ROUND RET. EXT. ROUND RET

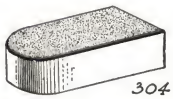
705
FLAT BULLNOSE INT. ROUND RETURN

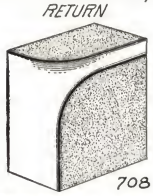
704
FLAT BULLNOSE INT. SQUARE RETURN


706
INTERNAL BULLNOSE STAND.


707
INT. BULLNOSE FLATTER

303
STANDAND DOUBLE BULLNOSE


304
FLATTER D. BULLNOSE


708
ROWLOCK SILL MITRE

## BULLNOSE SPECIALS

900
OGEE STRETCHER

901
OGEE HEADER

902
OGEE QUOIN

903
OGEE BULLNOSE

904
OGEE SQUARE MITRE

905
OGEE INTERNAL BULLNOSE

## OGEE MOULDS

800
COVE STRETCHER

801
COVE HEADER

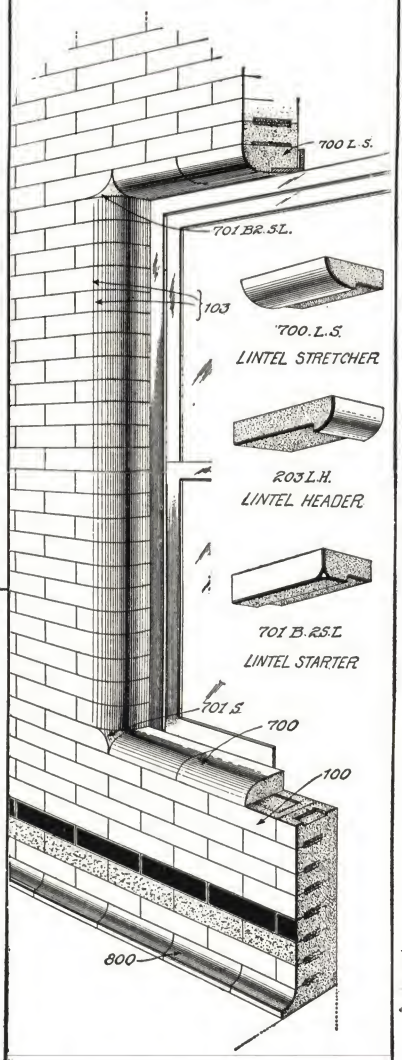
802
COVE QUOIN

803
COVE BULLNOSE

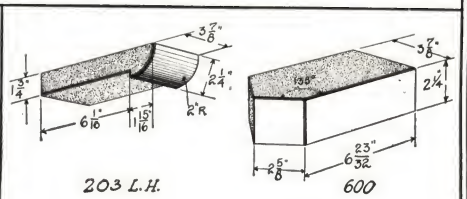
804
COVE MITRE

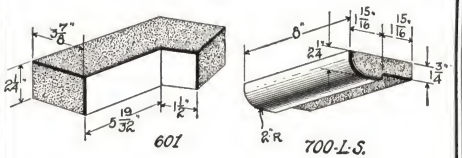
805
COVE INTERNAL BULLNOSE

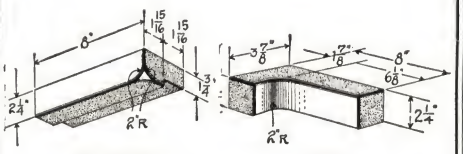
## COVE MOULDS

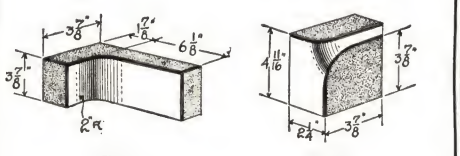


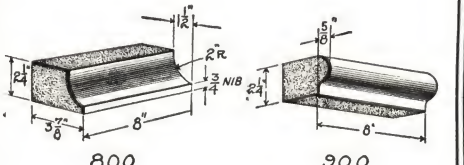

## STUDY OF A WINDOW OPENING




## PROJECTIONS & DIMENSIONS SPECIAL SHAPES

# SHAPES AND DIMENSIONS

# DOUBLE UNIT BRICK

The introduction last year of a double-unit enameled brick enormously widens the range of this product's usefulness.

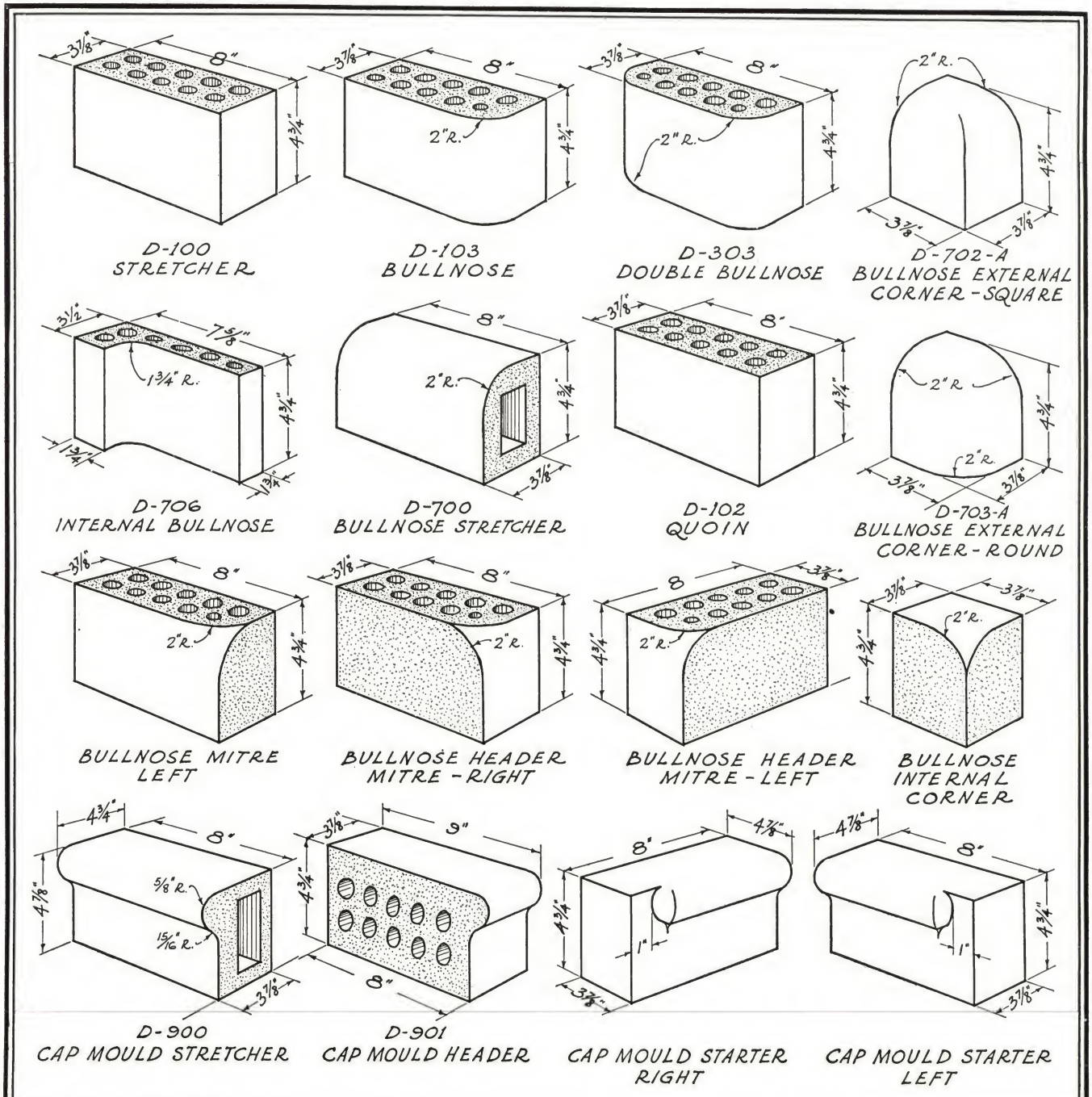
Its economy in erection is an outstanding characteristic. At every stage of handling, from delivery on the job to final laying in the wall, time is saved, in addition to a substantial saving in mortar. Careful tests indicate a saving of approximately one-third in the cost of the double-unit laid in the wall, for labor and mortar only.

Taking material costs into account at average current prices, the economy per square foot of laid wall is most striking.

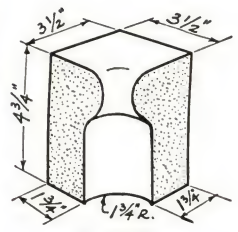
Double units are made in all the stock shapes shown for the single unit on the preceding pages, and in a full variety of special shapes, as shown below.

The same wide range of color and finish that is available in the single unit is also offered in the double unit, and the quality of the enameled surfaces secured on the double unit is in every respect equal to that on the single unit.

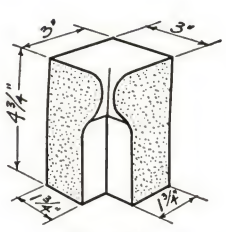
Under conditions where standard brick courses may be considered monotonous or where a special effect in large wall areas is desired, the double unit can be readily combined in random bond with the single type to secure a pleasing variety.



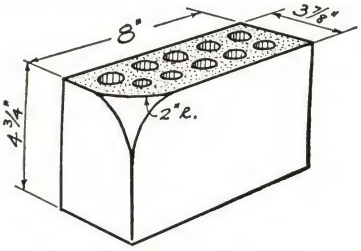

## TU-BRIC SHAPES



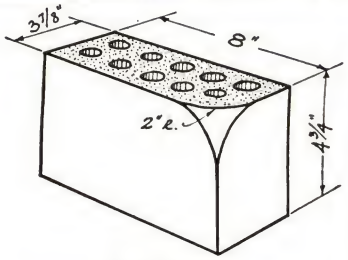

D-905
CAP MOULD INTERNAL
CORNER-ROUND



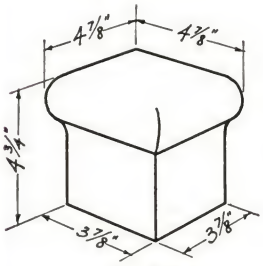

D-904
CAP MOULD INTERNAL
CORNER-SQUARE



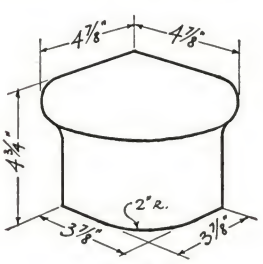

D-701-S
BULLNOSE STARTER
RIGHT



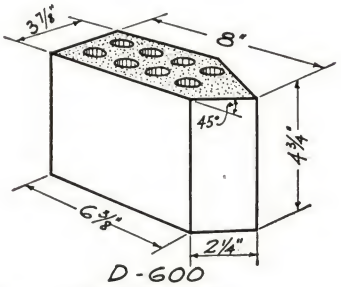

D-701-S
BULLNOSE STARTER
LEFT



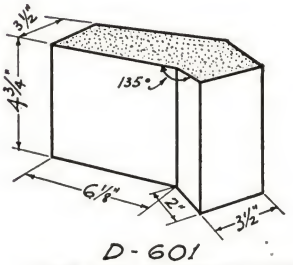

D-902
CAP MOULD EXTERNAL
CORNER-SQUARE



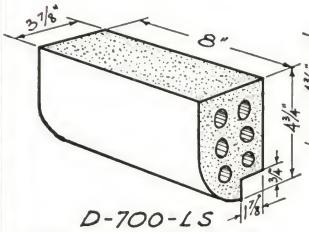

D-903
CAP MOULD EXTERNAL
CORNER-ROUND



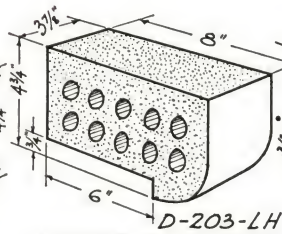

D-600
OCTAGON



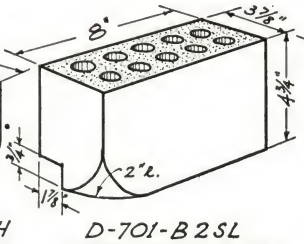

D-601
INTERNAL OCTAGON



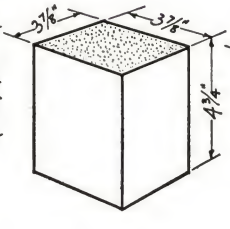

D-700-LS
LINTEL BULLNOSE
STRETCHER



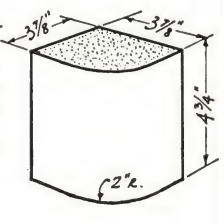

D-203-LH
LINTEL BULLNOSE
HEADER



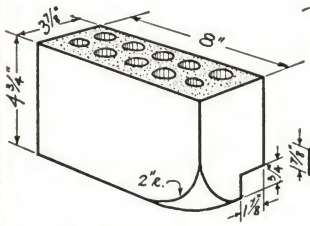

D-701-B2SL
LINTEL BULLNOSE
STARTER-RIGHT



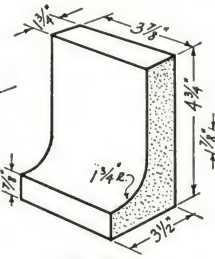

SQUARE
CORNER BLOCK



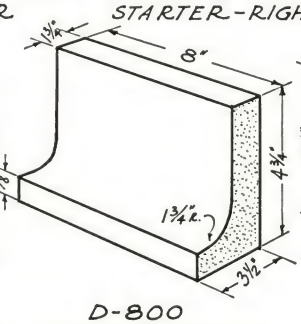

BULLNOSE
CORNER BLOCK



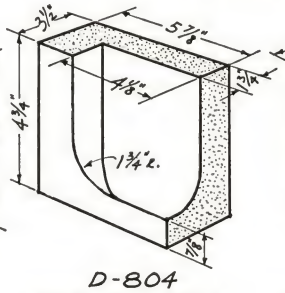

D-701-B2SL
LINTEL BULLNOSE
STARTER-LEFT



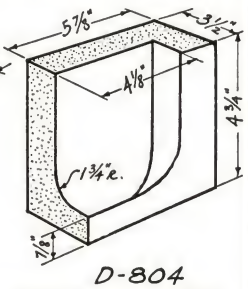

D-801
COVE HEADER



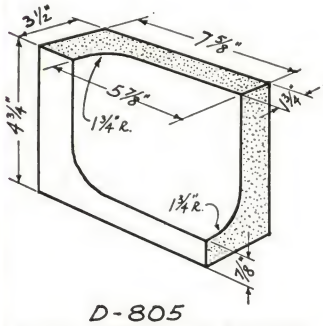

D-800
COVE STRETCHER



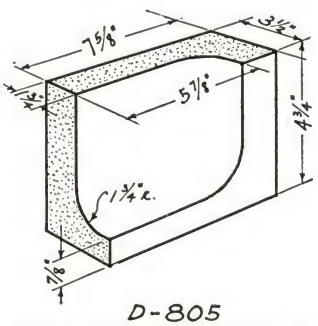

D-804
COVE INTERNAL
SQUARE COR.-RIGHT



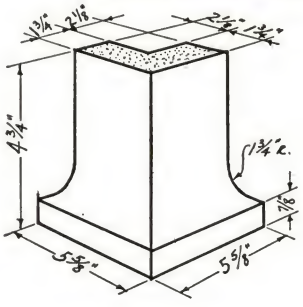

D-804
COVE INTERNAL
SQUARE COR.-LEFT



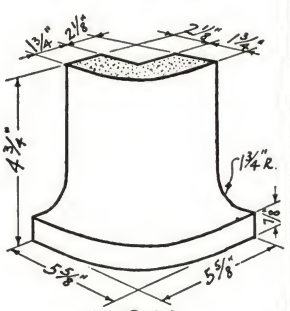

D-805
COVE INTERNAL ROUND
CORNER-RIGHT




D-805
COVE INTERNAL ROUND
CORNER-LEFT




D-802
COVE EXTERNAL
CORNER-SQUARE




D-803
COVE EXTERNAL
CORNER-ROUND

# TU-BRIC SHAPES

# AMERICAN ENAMELED BRICK CORPORATION

**Graybar Building, 420 Lexington Avenue**
**NEW YORK, N. Y.**

**FACTORY**
**SOUTH RIVER, N. J.**